

**WHAT IS CLAIMED IS:**

1. A method of computing an integrity factor comprising:
  - receiving pilot energy and phase rate;
  - calculating the derivative of the pilot energy;
  - determining a ratio of the derivative of the pilot energy to the phase rate;
  - generating an integrity factor based on the ratio.
2. The method of Claim 1, further comprising filtering the pilot energy.
3. The method of Claim 1, further comprising filtering the phase rate.
4. The method of Claim 1, further comprising setting the integrity factor to zero when said ratio and inputs do not adequately predict the future.
5. The method of Claim 1, further comprising delaying the phase rate relative to the derivative of the pilot energy.
6. The method of Claim 1, further comprising predicting a short term pilot strength based on the integrity factor.
7. The method of Claim 6, further comprising setting the short term pilot strength to the current pilot

strength when the integrity factor provides a poor indication of future pilot signal strength.

8. A pilot energy predictor comprising:

an integrity calculator which receives a phase rate and a pilot energy as inputs and determines a ratio of the derivative of the pilot energy to the phase rate and generates an integrity factor based on the ratio.

9. The pilot energy predictor of Claim 8, wherein a future pilot energy is estimated based on the integrity factor.

10. The pilot energy predictor of Claim 9, wherein the future pilot energy is set to the current pilot energy when the integrity factor provides a poor indication of future pilot signal strength.

11. The pilot energy predictor of Claim 8, further comprising:

a decision time frame which provides a phase rate delay parameter to the integrity calculator; and

wherein, the integrity calculator delays the phase rate relative to the pilot energy.

12. The pilot energy predictor of Claim 8, further comprising a filter for the phase rate.

13. The pilot energy predictor of Claim 8, further comprising a filter for the pilot strength.

14. A method of predicting a short term pilot strength comprising:

determining an amount of time to predict the pilot strength;

determining the predicted rate of change in the short term pilot strength; and

calculating the change in short term pilot strength by multiplying the predicted rate of change by the amount of time to predict the pilot strength.

15. The method of Claim 14, further comprising combining the change in short term pilot strength with a current pilot strength to generate a predicted short term pilot energy.

16. The method of Claim 15, further comprising providing the predicted short term pilot energy to a call processing decision logic.

17. The method of Claim 14, further comprising generating the predicted rate of change in pilot strength by multiplying an integrity factor by the current pilot phase rate.